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=> d que l27
L8                  STR
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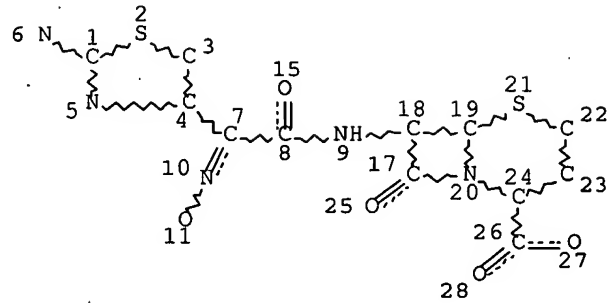

NODE ATTRIBUTES:
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DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RSPEC I
NUMBER OF NODES IS 24

STEREO ATTRIBUTES: NONE

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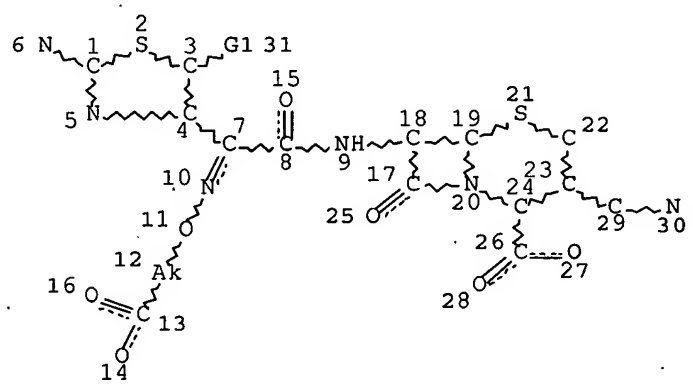

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NODE ATTRIBUTES:
NSPEC IS RC AT 30
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 31

STEREO ATTRIBUTES: NONE

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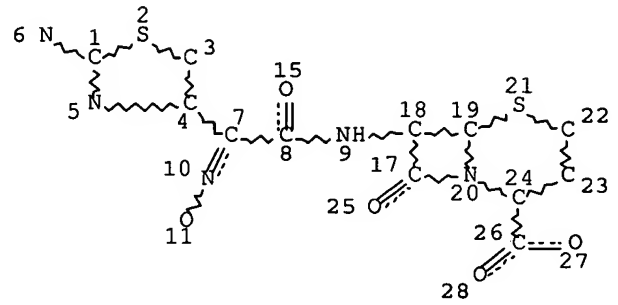
L17              8 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L16
L24            305 SEA FILE=HCAPLUS ABB=ON  PLU=ON  NISHITANI, Y?/AU
```

L25 422 SEA FILE=HCAPLUS ABB=ON PLU=ON YAMANO, Y?/AU
L26 1 SEA FILE=HCAPLUS ABB=ON PLU=ON (L24 OR L25) AND L17
L27 7 SEA FILE=HCAPLUS ABB=ON PLU=ON L17 NOT L26

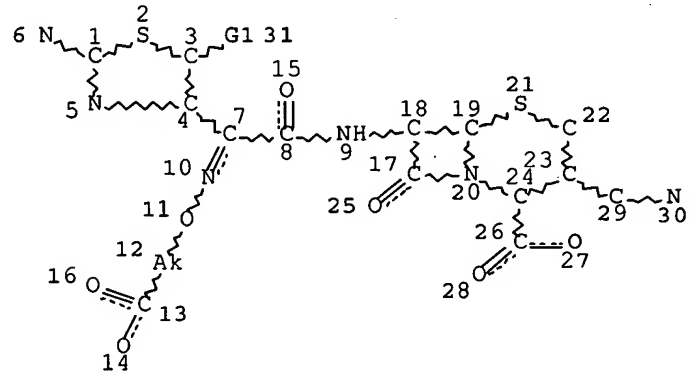
=> d que l23
L8 STR



NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RSPEC I
NUMBER OF NODES IS 24

STEREO ATTRIBUTES: NONE
L10 27085 SEA FILE=REGISTRY SSS FUL L8
L14 STR



VAR G1=C/X/O/S
NODE ATTRIBUTES:
NSPEC IS RC AT 30
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 31

STEREO ATTRIBUTES: NONE
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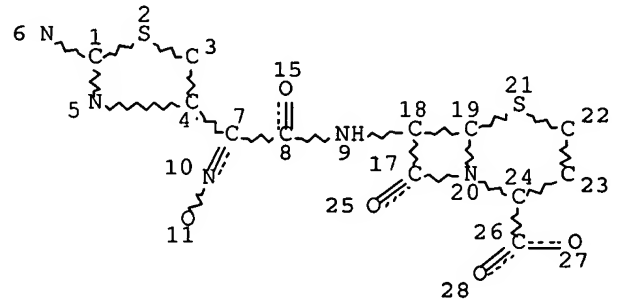
L23 0 SEA FILE=BEILSTEIN ABB=ON PLU=ON L16

=> d que l24
L24 305 SEA FILE=HCAPLUS ABB=ON PLU=ON NISHITANI, Y?/AU

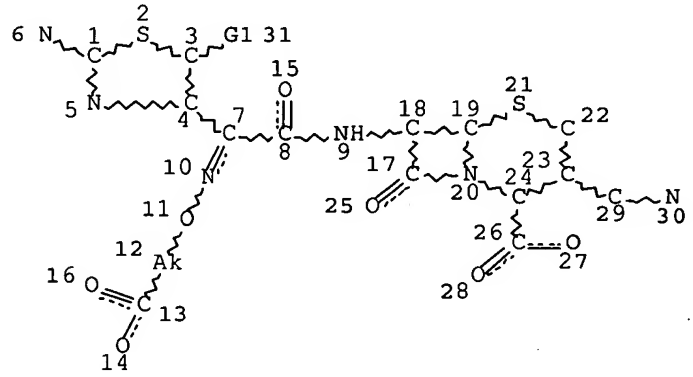
=> d que l22
L8 STR



NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RSPEC I
NUMBER OF NODES IS 24

STEREO ATTRIBUTES: NONE
L10 27085 SEA FILE=REGISTRY SSS FUL L8
L14 STR



VAR G1=C/X/O/S
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NSPEC IS RC AT 30
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 31

STEREO ATTRIBUTES: NONE
L16 275 SEA FILE=REGISTRY SUB=L10 SSS FUL L14
L22 0 SEA FILE=CAOLD ABB=ON PLU=ON L16

=> d l27 1-7 ibib ed abs hitstr hitind

L27 ANSWER 1 OF 7 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2006:787716 HCAPLUS Full-text
DOCUMENT NUMBER: 145:210796
TITLE: Process for preparation of N-(4-pyridyl)ethylenediamine derivatives
INVENTOR(S): Shimizu, Sumio; Hakogi, Toshikazu; Tanimoto, Norihiko
PATENT ASSIGNEE(S): Shionogi and Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 28pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2006206529	A	20060810	JP 2005-22598	20050131

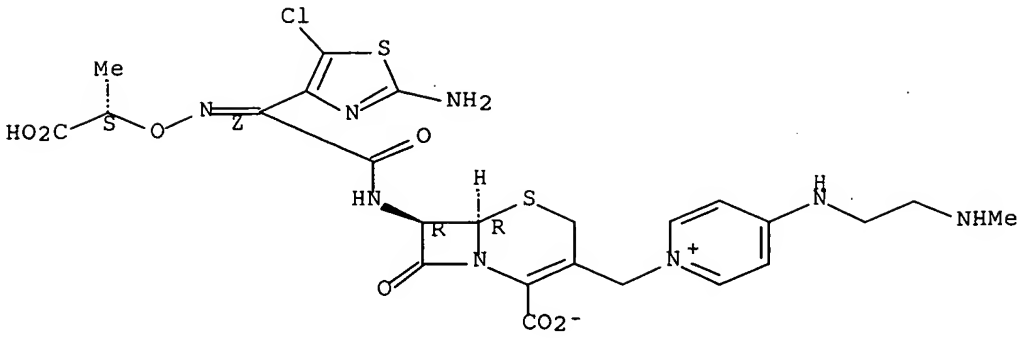
PRIORITY APPLN. INFO.: JP 2005-22598 20050131

OTHER SOURCE(S): MARPAT 145:210796
ED Entered STN: 10 Aug 2006
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB This invention pertains to a method for producing N-(4-pyridyl)ethylenediamine derivs. with general formula of I and II•X- [wherein R = H, alkyl, or (un)substituted aralkyl; R1 = H, alkoxycarbonyl, etc.; R2 and R3 = H or =O; R4 = H, alkoxycarbonyl, etc.; R5 = alkyl, alkoxycarbonyl, etc.; R6-R8 = independently a protecting group; R9 = H, alkyl, or halo; R10 = alkyl; X = a leaving group] or salts thereof. For example, the compound III was prepared in a multi-step synthesis in good yield.
IT **604001-47-0P**
(preparation of N-(4-pyridyl)ethylenediamine derivs.)
RN 604001-47-0 HCAPLUS
CN Pyridinium, 1-[[(6R,7R)-7-[[(2Z)-(2-amino-5-chloro-4-thiazolyl)[[(1S)-1-carboxyethoxy]imino]acetyl]amino]-2-carboxy-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-en-3-yl]methyl]-4-[[2-(methylamino)ethyl]amino]-, inner salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

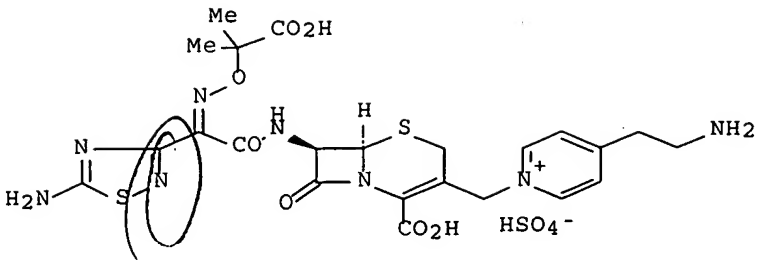


CC 26-5 (Biomolecules and Their Synthetic Analogs)
IT **604001-47-0P** 905280-04-8P 905280-05-9P 905280-06-0P
905280-08-2P 905280-09-3P 905280-10-6P
(preparation of N-(4-pyridyl)ethylenediamine derivs.)

L27 ANSWER 2 OF 7 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2006:348558 HCAPLUS Full-text
DOCUMENT NUMBER: 145:7928
TITLE: Preparation of cephem compounds for use in antibacterial pharmaceutical compositions
INVENTOR(S): Okuda, Shinya; Murano, Kenji; Itoh, Kenji; Misumi, Keiji; Satoh, Kenji; Kawabata, Kohji; Toda, Ayako; Inoue, Satoshi; Ohki, Hidenori; Yamanaka, Toshio
PATENT ASSIGNEE(S): Wakunaga Pharmaceutical Co., Ltd., Japan; Astellas Pharma, Inc.
SOURCE: Aust. Pat. Appl., 96 pp.
CODEN: AUXXCM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
AU 2005202802	A1	20060112	AU 2005-202802		20050627
PRIORITY APPLN. INFO.:			AU 2004-903529	A	20040628
			AU 2004-903705	A	20040706

OTHER SOURCE(S): MARPAT 145:7928
ED Entered STN: 17 Apr 2006
GI



I

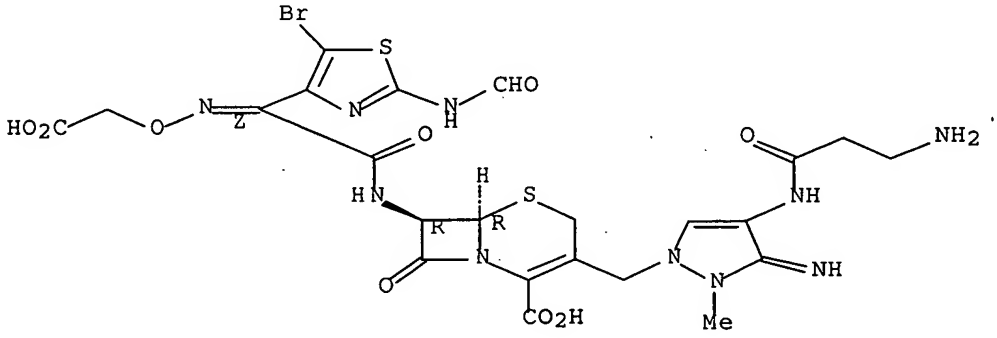
AB Cephem derivs., such as I, were prepared starting from 4-methoxybenzyl 7β-amino-3-(chloromethyl)-3-cephem-4-carboxylate hydrochloride for therapeutic use in the treatment of bacterial infections. The prepared cephems were assayed for antibacterial activity against Pseudomonas aeruginosa FP 1456.

IT **887775-77-1P**
(preparation of cephem compds. for use in antibacterial pharmaceutical compns.)

RN 887775-77-1 HCAPLUS

CN 5-Thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid, 7-[[(2Z)-[5-bromo-2-(formylamino)-4-thiazolyl][(carboxymethoxy)imino]acetyl]amino]-3-[[4-[(3-amino-1-oxopropyl)amino]-2,3-dihydro-3-imino-2-methyl-1H-pyrazol-1-yl]methyl]-8-oxo-, (6R,7R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



IT **887775-65-7P 887775-67-9P 887775-74-8P**
887775-79-3P 887775-82-8P 887775-87-3P
(preparation of cephem compds. for use in antibacterial pharmaceutical compns.)

RN 887775-65-7 HCAPLUS

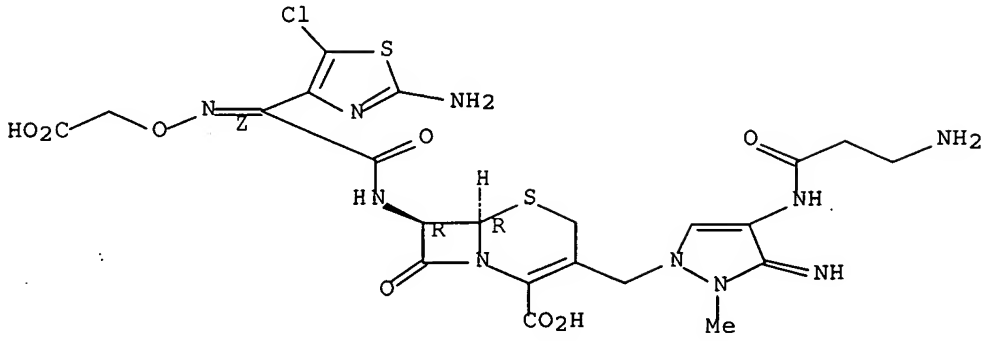
CN 5-Thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid, 7-[[(2Z)-(2-amino-5-chloro-4-thiazolyl)[(carboxymethoxy)imino]acetyl]amino]-3-[[4-[(3-amino-1-oxopropyl)amino]-2,3-dihydro-3-imino-2-methyl-1H-pyrazol-1-yl]methyl]-8-oxo-, (6R,7R)-, sulfate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 887775-64-6

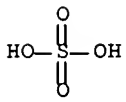
CMF C22 H25 Cl N10 O8 S2

Absolute stereochemistry.
Double bond geometry as shown.



CM 2

CRN 7664-93-9
CMF H2 O4 S

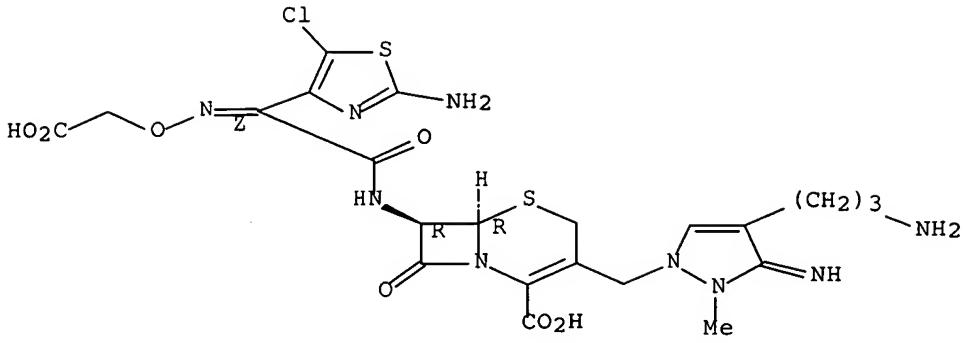


RN 887775-67-9 HCAPLUS
CN 5-Thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid, 7-[[(2Z)-(2-amino-5-chloro-4-thiazolyl)[(carboxymethoxy)imino]acetyl]amino]-3-[[4-(3-aminopropyl)-2,3-dihydro-3-imino-2-methyl-1H-pyrazol-1-yl]methyl]-8-oxo-, (6R,7R)-, sulfate (1:1) (9CI) (CA INDEX NAME)

CM 1

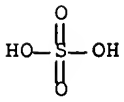
CRN 887775-66-8
CMF C22 H26 Cl N9 O7 S2

Absolute stereochemistry.
Double bond geometry as shown.



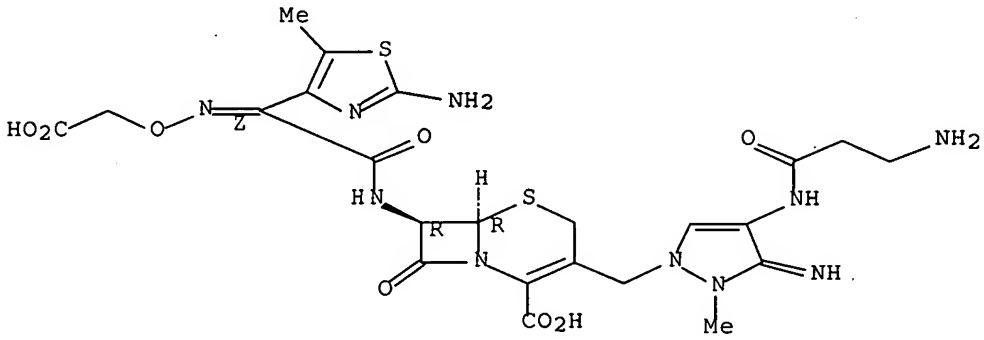
CM 2

CRN 7664-93-9
CMF H2 O4 S



RN 887775-74-8 HCAPLUS
CN 5-Thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid,
7-[[(2Z)-(2-amino-5-methyl-4-thiazolyl)[(carboxymethoxy)imino]acetyl]amino]-3-[[4-[(3-amino-1-oxopropyl)amino]-2,3-dihydro-3-imino-2-methyl-1H-pyrazol-1-yl]methyl]-8-oxo-, (6R,7R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



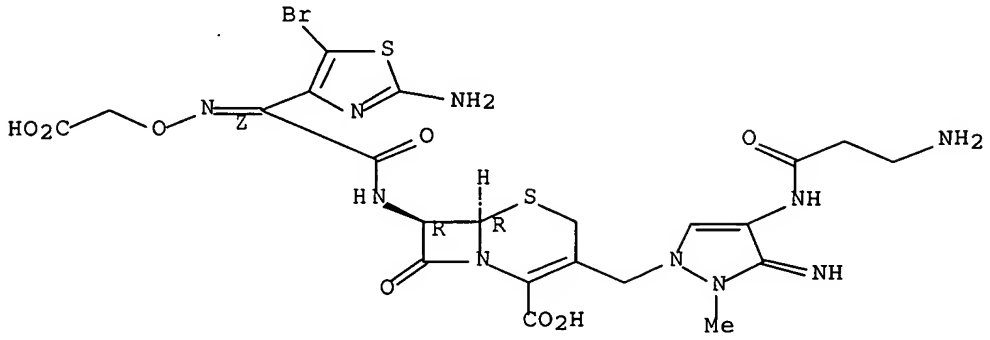
RN 887775-79-3 HCAPLUS
CN 5-Thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid,
7-[[(2Z)-(2-amino-5-bromo-4-thiazolyl)[(carboxymethoxy)imino]acetyl]amino]-3-[[4-[(3-amino-1-oxopropyl)amino]-2,3-dihydro-3-imino-2-methyl-

1H-pyrazol-1-yl]methyl]-8-oxo-, (6R,7R)-, sulfate (1:1) (9CI) (CA INDEX NAME)

CM 1

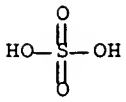
CRN 887775-78-2
CMF C22 H25 Br N10 O8 S2

Absolute stereochemistry.
Double bond geometry as shown.



CM 2

CRN 7664-93-9
CMF H2 O4 S

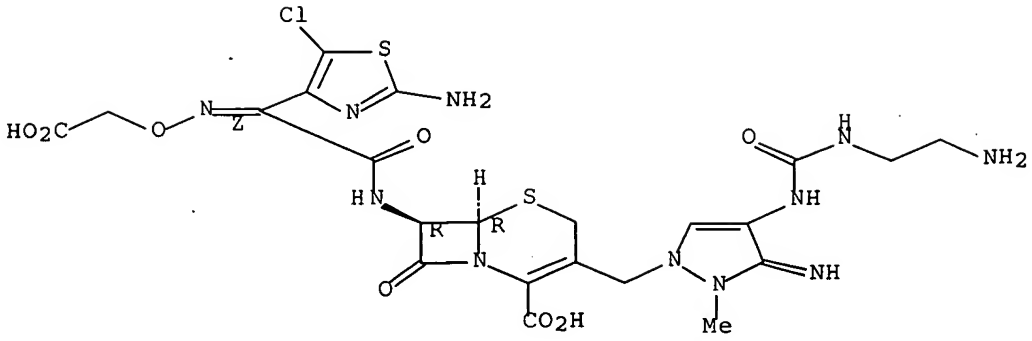


RN 887775-82-8 HCAPLUS
CN 5-Thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid, 7-[[(2Z)-(2-amino-5-chloro-4-thiazolyl)[(carboxymethoxy)imino]acetyl]amino]-3-[[4-[[[(2-aminoethyl)amino]carbonyl]amino]-2,3-dihydro-3-imino-2-methyl-1H-pyrazol-1-yl]methyl]-8-oxo-, (6R,7R)-, sulfate (1:1) (9CI) (CA INDEX NAME)

CM 1

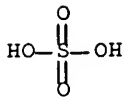
CRN 887775-81-7
CMF C22 H26 Cl N11 O8 S2

Absolute stereochemistry.
Double bond geometry as shown.



CM 2

CRN 7664-93-9
CMF H2 O4 S

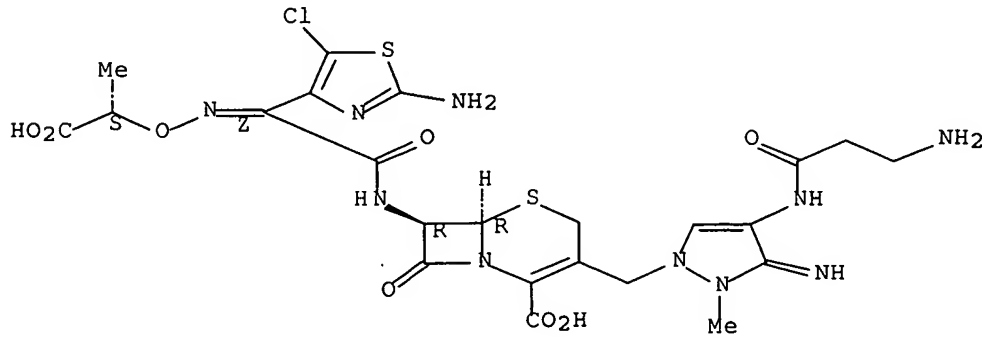


RN 887775-87-3 HCAPLUS
CN 5-Thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid, 7-[[(2Z)-(2-amino-5-chloro-4-thiazolyl)[[(1S)-1-carboxyethoxy]imino]acetyl]amino]-3-[[4-[(3-amino-1-oxopropyl)amino]-2,3-dihydro-3-imino-2-methyl-1H-pyrazol-1-yl]methyl]-8-oxo-, (6R,7R)-, sulfate (1:1) (9CI) (CA INDEX NAME)

CM 1

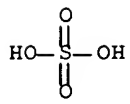
CRN 887775-86-2
CMF C23 H27 Cl N10 O8 S2

Absolute stereochemistry.
Double bond geometry as shown.



CM 2

CRN 7664-93-9
CMF H2 O4 S



CC 26-5 (Biomolecules and Their Synthetic Analogs)
Section cross-reference(s): 1, 10, 63
IT **887775-77-1P**
(preparation of cephem compds. for use in antibacterial pharmaceutical compns.)
IT 864780-68-7P 864780-74-5P 887775-58-8P 887775-59-9P
887775-60-2P 887775-61-3P 887775-62-4P 887775-63-5P
887775-65-7P 887775-67-9P 887775-74-8P
887775-79-3P 887775-82-8P 887775-87-3P
(preparation of cephem compds. for use in antibacterial pharmaceutical compns.)

L27 ANSWER 3 OF 7 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2005:58212 HCAPLUS Full-text
DOCUMENT NUMBER: 142:134930
TITLE: Preparation of cross-linked glycopeptide-cephalosporin antibiotics
INVENTOR(S): Fatheree, Paul R.; Linsell, Martin S.; Marquess, Daniel; Trapp, Sean G.; Moran, Edmund J.; Aggen, James B.
PATENT ASSIGNEE(S): Theravance, Inc., USA
SOURCE: PCT Int. Appl., 53 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005005436	A2	20050120	WO 2004-US22319	20040709
WO 2005005436	A3	20050310		

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RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ,

GW, ML, MR, NE, SN, TD, TG

US 2005026818	A1	20050203	US 2004-888849	20040709
US 7067482	B2	20060627		
EP 1644382	A2	20060412	EP 2004-778030	20040709
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US 2006189517	A1	20060824	US 2006-405331	20060417

PRIORITY APPLN. INFO.:

US 2003-486484P	P	20030711
US 2004-888849	A1	20040709
WO 2004-US22319	W	20040709

OTHER SOURCE(S): MARPAT 142:134930
ED Entered STN: 21 Jan 2005
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB The invention provides cross-linked glycopeptide-cephalosporin compds. I [R is fragment II; X1, X2 are independently H or Cl; W is N or CCl; R1, R2 are independently H or alkyl; R3 is alkyl, alkoxy, halo, alkylthio, alkylsulfinyl, alkylsulfonyl or alkoxysulfonyl which may be substituted by CO2H or F; one of R4 and R5 is H and the other is OH; R6, R7 are independently H or Me; R8 is H or 4-amino-3-hydroxy-2,4- dimethyltetrahydro-2H-pyran-2-yl; R9 is H or (cyclo)alkyl which may be substituted by CO2H or 1-3 F atoms; n is 0-3; X is -Ra(NRbCO-Rc)0-2(CONRb'CO-Rc')0-2-, where Ra is -Y-R''; R'' contains at most 20 non-hydrogen atoms and is defined as (un)substituted alkylene, alkenylene, alkynylene, cycloalkylene, arylene, heteroarylene or heterocyclyl; Y links R to the pyridinium ring at a meta or para position and is a direct bond, NR', O, S, CO, NR'CO or CONR' (R' is H or alkyl), precluding direct bonds between heteroatoms in Y and R ; Rb, Rb' are independently H, alkyl, alkenyl or alkynyl; Rc is independently -Y'-R''-Y'-, where each Y' is independently a direct bond, O or NR', precluding direct bonds between heteroatoms in Y' and R ; Rc' is a group defined by R''] and their pharmaceutically-acceptable salts which are useful as antibiotics. The invention also provides pharmaceutical compns., methods for treating bacterial infections in a mammal, and processes and intermediates useful for preparing such compds. Thus, vancomycin hydrochloride was treated with ethylenediamine/formaldehyde and pyridinium lactam II (W is CCl, X is 4-CH2NH2, n is 0, R9 is Me) (prepared from an aminocephalosporonic ester) was amidated with adipic acid bis-HOAT ester. Coupling of the products afforded a glycopeptide-cephalosporin conjugate which showed MIC < 0.1 μg/mL for inhibition of methicillin-resistant and methicillin-susceptible S. aureus (vancomycin MIC = 2.0 and 1.0 μg/mL, resp.).

IT **827040-36-8P 827040-37-9P**
(preparation of cross-linked glycopeptide-cephalosporin antibiotics)

RN 827040-36-8 HCAPLUS

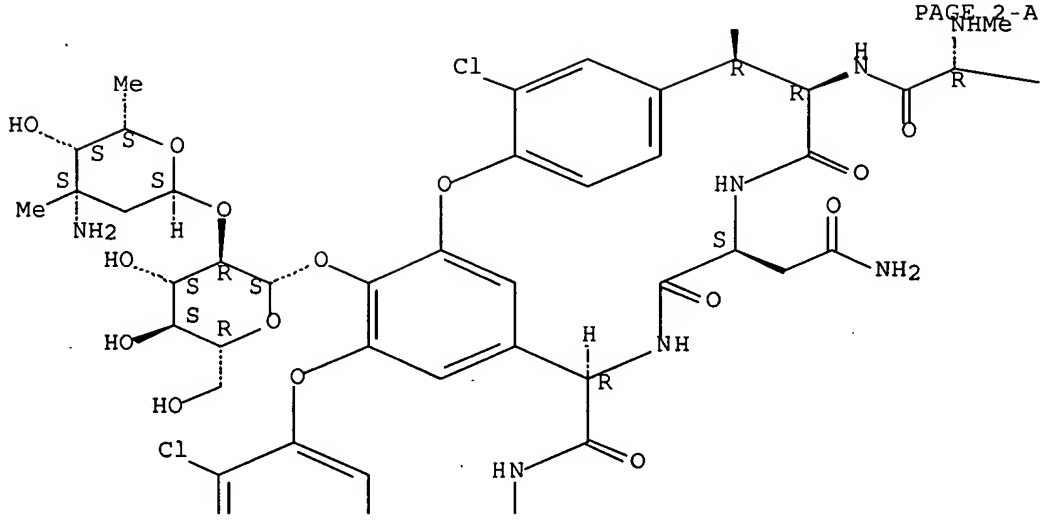
CN Vancomycin, 29-[[[2-[[6-[[[1-[[(6R,7R)-7-[[(2Z)-(2-amino-5-chloro-4-thiazolyl)[(1-carboxy-1-methylethoxy)imino]acetyl]amino]-2-carboxy-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-en-3-yl]methyl]pyridinium-4-yl]methyl]amino]-1,6-dioxohexyl]amino]ethyl]amino]methyl]-, inner salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

PAGE 1-A

OH

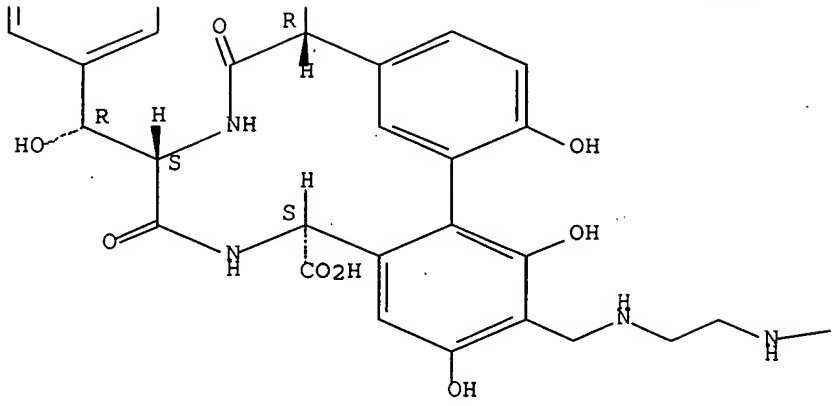
PAGE 2-A



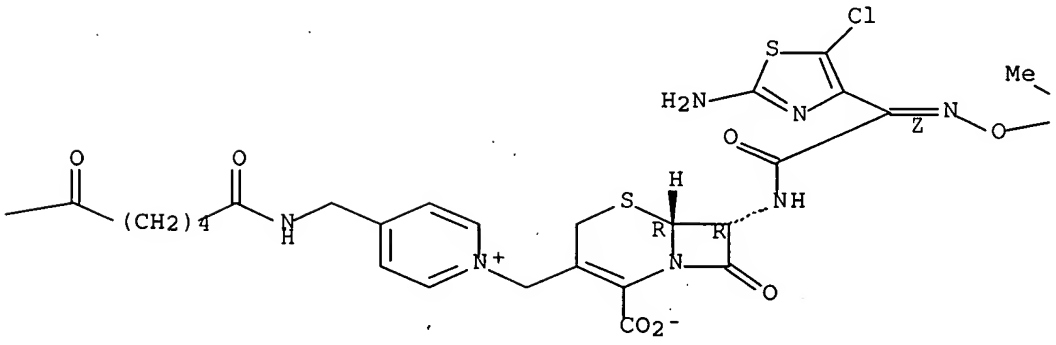
PAGE 2-B

—Bu-i

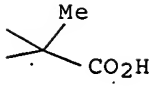
PAGE 3-A



PAGE 3-B



PAGE 3-C

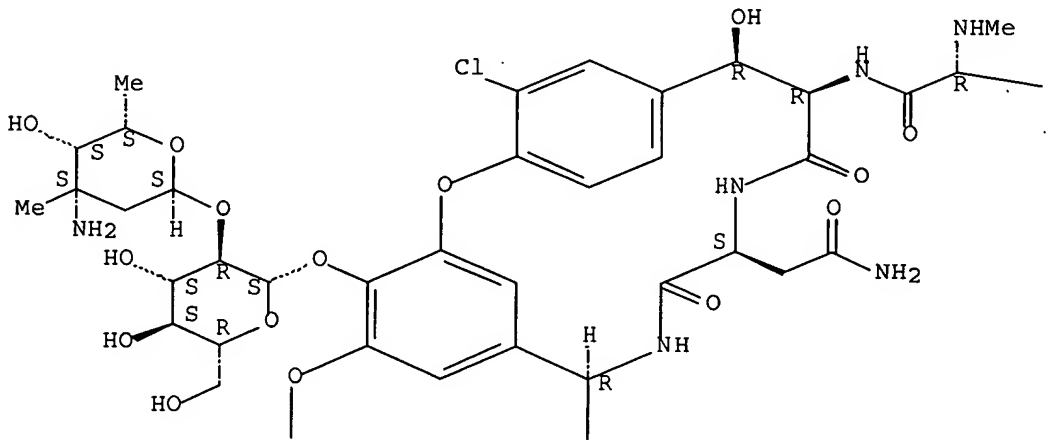


RN 827040-37-9 HCAPLUS
CN Vancomycin, 29-[[[2-[[4-[[[1-[[(6R,7R)-7-[[(2Z)-(2-amino-5-chloro-4-

thiazolyl)[(1-carboxy-1-methylethoxy)imino]acetyl]amino]-2-carboxy-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-en-3-yl]methyl]pyridinium-3-yl]methyl]amino]-1,4-dioxobutyl]amino]ethyl]amino]methyl]-, inner salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

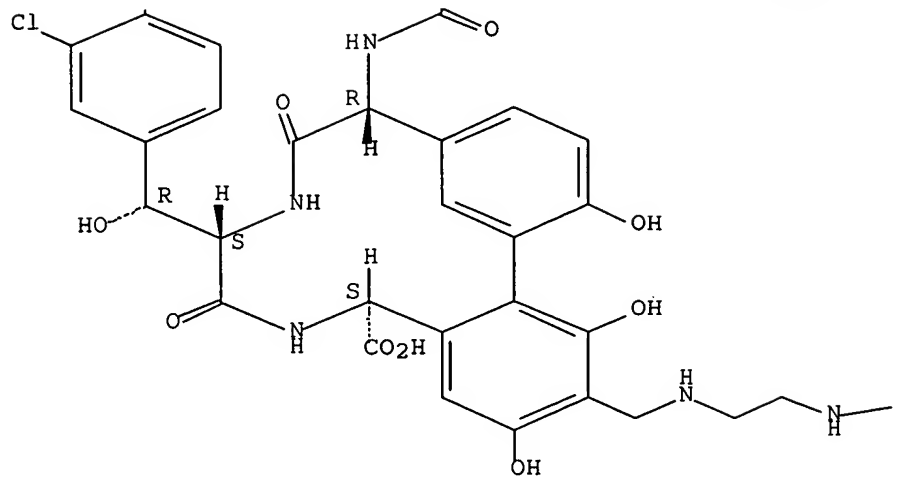
PAGE 1-A



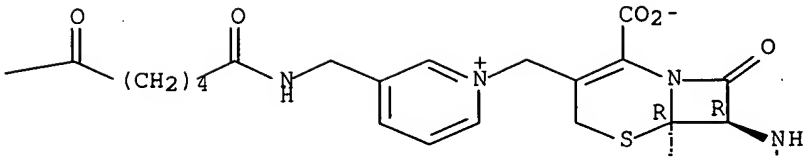
PAGE 1-B

—Bu-i

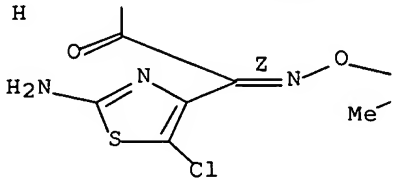
PAGE 2-A

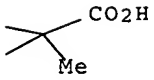


PAGE 2-B



PAGE 3-B



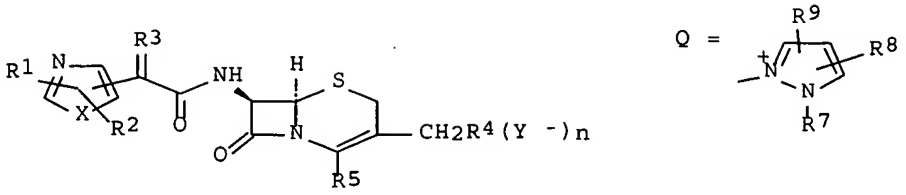


IC ICM C07D501-00
CC 34-3 (Amino Acids, Peptides, and Proteins)
Section cross-reference(s): 1, 26, 33, 63
IT 827040-07-3P 827040-08-4P 827040-09-5P 827040-10-8P
827040-11-9P 827040-12-0P 827040-13-1P 827040-14-2P
827040-15-3P 827040-16-4P 827040-17-5P 827040-18-6P
827040-19-7P 827040-20-0P 827040-21-1P 827040-22-2P
827040-23-3P 827040-24-4P 827040-25-5P 827040-26-6P
827040-27-7P 827040-28-8P 827040-29-9P 827040-30-2P
827040-31-3P 827040-32-4P 827040-33-5P 827040-34-6P
827040-35-7P **827040-36-8P 827040-37-9P**
827040-38-0P 827040-39-1P 827040-40-4P 827040-41-5P
827040-43-7P 827040-44-8P 827040-45-9P 827040-46-0P
827040-47-1P 827040-48-2P 827040-49-3P 827040-50-6P
827040-51-7P 827040-53-9P 827040-54-0P 827040-55-1P
827040-56-2P 827040-57-3P 827040-58-4P 827040-59-5P
827040-60-8P 827040-61-9P 827040-62-0P 827040-63-1P
(preparation of cross-linked glycopeptide-cephalosporin antibiotics)

L27 ANSWER 4 OF 7 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1997:740235 HCAPLUS Full-text
DOCUMENT NUMBER: 128:13170
TITLE: 3-pyrazoliomethylcephem compounds as antimicrobial agents
INVENTOR(S): Kawabata, Kohji; Okuda, Shinya; Kishi, Kohei; Eikyu, Yoshiteru; Takasugi, Hisashi
PATENT ASSIGNEE(S): Fujisawa Pharmaceutical Co., Ltd., Japan
SOURCE: PCT Int. Appl., 99 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
WO 9741128	A1	19971106	WO 1997-JP1416		19970424
W: AU, CA, CN, JP, KR, US					
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE					
AU 9724055	A	19971119	AU 1997-24055		19970424
PRIORITY APPLN. INFO.:			AU 1996-9555	A	19960430
			WO 1997-JP1416	W	19970424

OTHER SOURCE(S): MARPAT 128:13170
ED Entered STN: 24 Nov 1997
GI



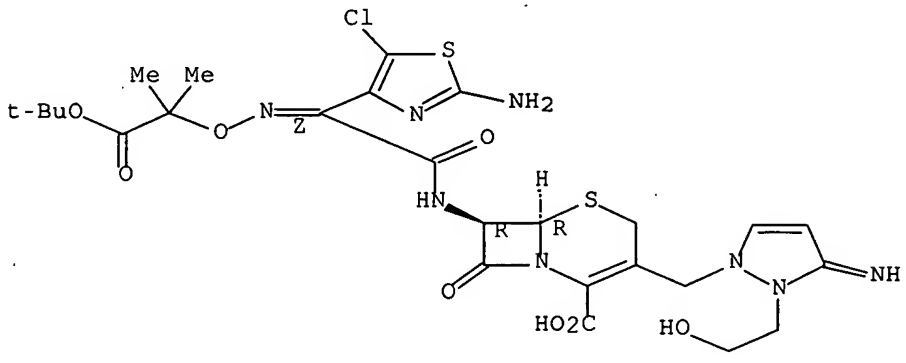
AB Synthesis of cephems (I) [R1 = (un)substituted amino; R2 = halo, alkyl, (un)substituted alkylthio; R3 = =NOR6; R4 = Q; R5 = CO2-, (un)substituted carboxy; R6 = H, (un)substituted alkyl, (un)substituted alkenyl, (un)substituted alkynyl; R7 = OH, (un)substituted O, (un)substituted alkyl; R8 = (un)substituted amino; R9 = H, alkyl, heterocycle; X = S, O; Y = anion; n = 0, 1] and suitable salts is described. Thus, I (R1 = NH2, R2 = Cl, R3 = =NOCH2CN, R4 = Q, R5 = CO2H, R7 = CH2CH2OH, R8 = =NH, R9 = H, X = S) (II) is prepared by the condensation of (Z)-2-cyanomethoxyimino-2-(2- amino-5-chlorothiazol-4-yl)acetic acid with 7β-amino-3-[5-imino-1- (2-hydroxyethyl)-2-pyrazolyl]-methyl-3-cephem-4-carboxylic acid. II shows an MIC of 6.25 ug/mL against S. aureus 3004 when incubated at 37°C for 20 h.

IT **199002-35-2P 199002-57-8P**
(preparation of 3-pyrazoliomethylcephem compds. as antimicrobial agents)

RN 199002-35-2 HCAPLUS

CN 5-Thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid, 7-[[(2-amino-5-chloro-4-thiazolyl)[[2-(1,1-dimethylethoxy)-1,1-dimethyl-2-oxoethoxy]imino]acetyl]amino]-3-[[2,3-dihydro-2-(2-hydroxyethyl)-3-imino-1H-pyrazol-1-yl]methyl]-8-oxo-, [6R-[6α,7β(Z)]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

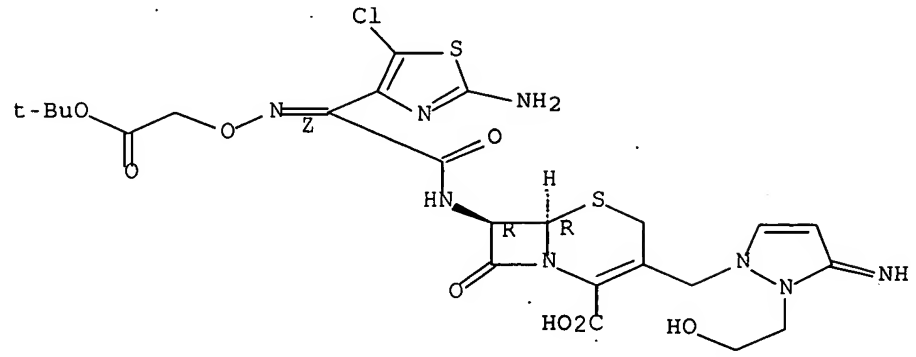


RN 199002-57-8 HCAPLUS

CN 5-Thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid, 7-[[(2-amino-5-chloro-4-thiazolyl)[[2-(1,1-dimethylethoxy)-2-oxoethoxy]imino]acetyl]amino]-3-[[2,3-dihydro-2-(2-hydroxyethyl)-3-imino-1H-pyrazol-1-yl]methyl]-8-oxo-, [6R-[6α,7β(Z)]]-

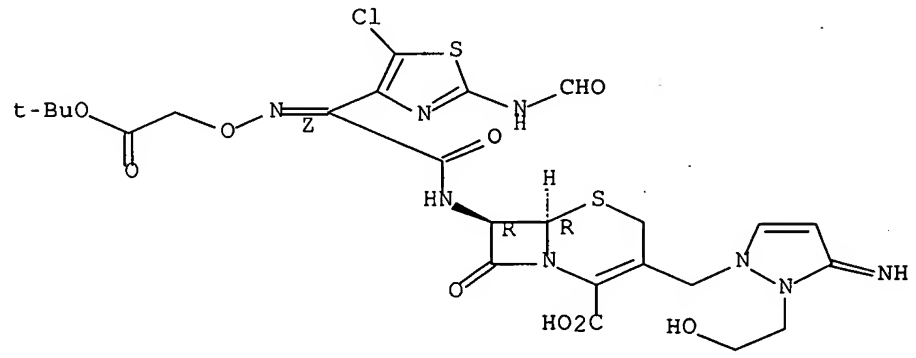
(9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



IT **199002-33-0P 199002-36-3P 199002-63-6P**
199002-67-0P 199002-68-1P
(preparation of 3-pyrazoliomethylcephem compds. as antimicrobial agents)
RN 199002-33-0 HCAPLUS
CN 5-Thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid, 7-[[[5-chloro-2-(formylamino)-4-thiazolyl][[2-(1,1-dimethylethoxy)-2-oxoethoxy]imino]acetyl]amino]-3-[[2,3-dihydro-2-(2-hydroxyethyl)-3-imino-1H-pyrazol-1-yl]methyl]-8-oxo-, [6R-[6α,7β(Z)]]- (9CI) (CA INDEX NAME)

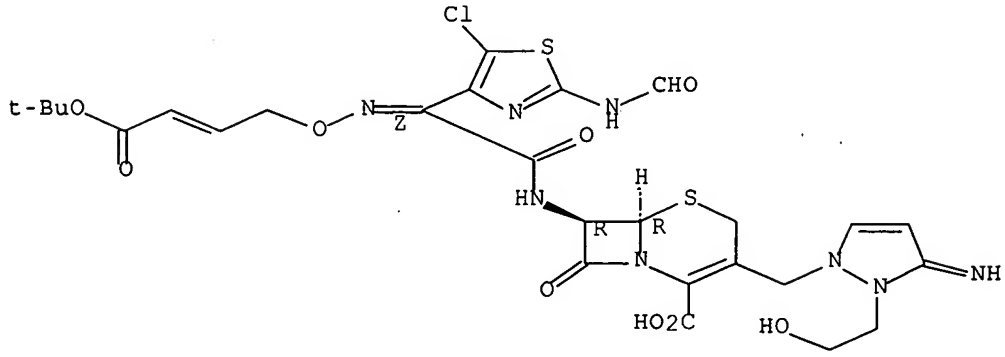
Absolute stereochemistry.
Double bond geometry as shown.



RN 199002-36-3 HCAPLUS
CN 5-Thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid, 7-[[[5-chloro-2-(formylamino)-4-thiazolyl][[4-(1,1-dimethylethoxy)-4-oxo-2-butenyl]oxy]imino]acetyl]amino]-3-[[2,3-dihydro-2-(2-hydroxyethyl)-3-imino-1H-pyrazol-1-yl]methyl]-8-oxo-, [6R-[6α,7β(1Z)]]- (9CI) (CA INDEX NAME)

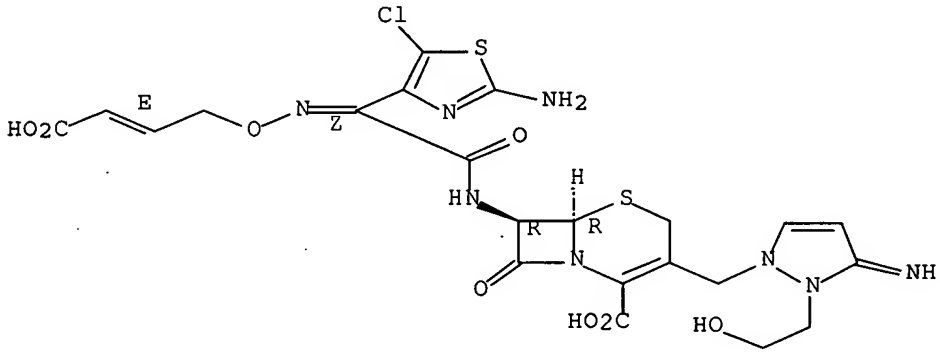
Absolute stereochemistry.

Double bond geometry as described by E or Z.



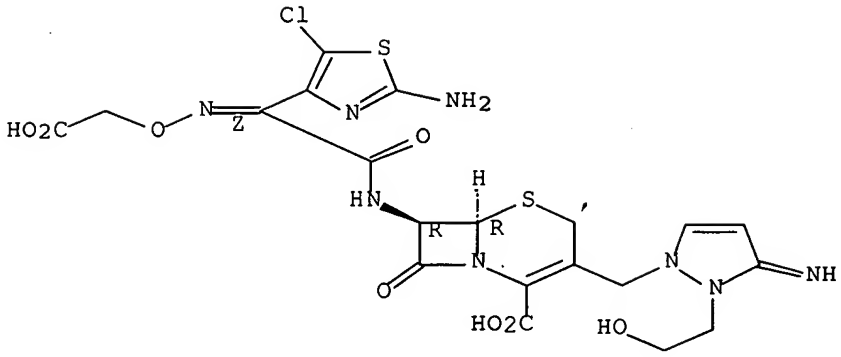
RN 199002-63-6 HCAPLUS
CN 5-Thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid, 7-[[(2-amino-5-chloro-4-thiazolyl)[[(3-carboxy-2-propenyl)oxy]imino]acetyl]amino]-3-[[2,3-dihydro-2-(2-hydroxyethyl)-3-imino-1H-pyrazol-1-yl]methyl]-8-oxo-, [6R-[6α,7β[Z(E)]]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



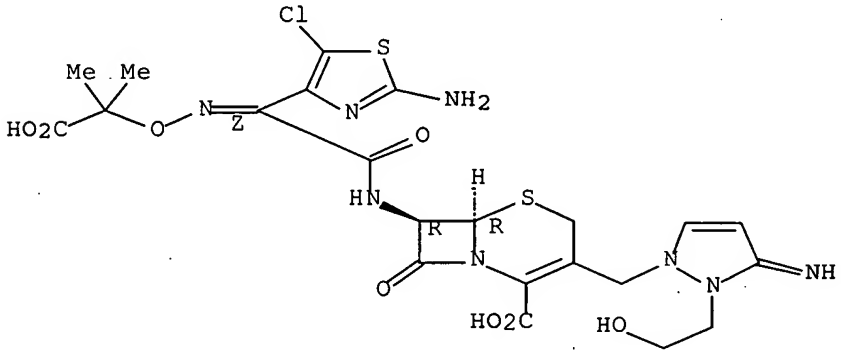
RN 199002-67-0 HCAPLUS
CN 5-Thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid, 7-[[(2-amino-5-chloro-4-thiazolyl)[(carboxymethoxy)imino]acetyl]amino]-3-[[2,3-dihydro-2-(2-hydroxyethyl)-3-imino-1H-pyrazol-1-yl]methyl]-8-oxo-, [6R-[6α,7β(Z)]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



RN 199002-68-1 HCAPLUS
CN 5-Thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid, 7-[[(2-amino-5-chloro-4-thiazolyl)[(1-carboxy-1-methylethoxy)imino]acetyl]amino]-3-[[2,3-dihydro-2-(2-hydroxyethyl)-3-imino-1H-pyrazol-1-yl]methyl]-8-oxo-, [6R-[6α,7β(Z)]]- (9CI) (CA INDEX NAME)

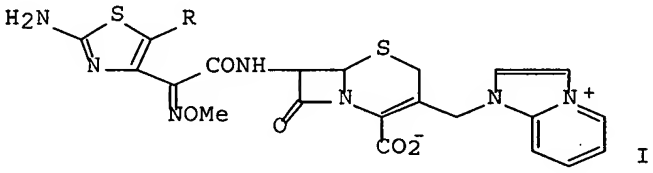
Absolute stereochemistry.
Double bond geometry as shown.



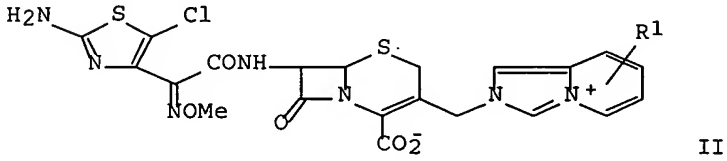
IC ICM C07D501-46
ICS A61K031-545
CC 26-5 (Biomolecules and Their Synthetic Analogs)
Section cross-reference(s): 1
IT 199002-20-5P 199002-22-7P **199002-35-2P** 199002-51-2P
199002-52-3P **199002-57-8P**
(preparation of 3-pyrazoliomethylcephem compds. as antimicrobial agents)
IT 199002-21-6P 199002-23-8P 199002-24-9P 199002-25-0P
199002-26-1P 199002-27-2P 199002-28-3P 199002-29-4P
199002-30-7P 199002-31-8P 199002-32-9P **199002-33-0P**
199002-34-1P **199002-36-3P** 199002-37-4P 199002-38-5P
199002-39-6P 199002-40-9P 199002-41-0P 199002-42-1P
199002-43-2P 199002-44-3P 199002-45-4P 199002-46-5P
199002-47-6P 199002-48-7P 199002-49-8P 199002-50-1P
199002-53-4P 199002-54-5P 199002-55-6P 199002-56-7P
199002-58-9P 199002-59-0P 199002-60-3P 199002-61-4P

199002-62-5P **199002-63-6P** 199002-65-8P 199002-66-9P
199002-67-0P **199002-68-1P** 199002-69-2P
199002-70-5P 199002-71-6P 199002-72-7P 199002-73-8P
199002-74-9P 199002-75-0P 199002-76-1P 199002-77-2P
199002-78-3P 199002-79-4P 199002-80-7P 199002-81-8P
199002-82-9P 199002-83-0P 199002-84-1P 199002-85-2P
199002-86-3P 199002-87-4P 199002-88-5P 199002-89-6P
199002-90-9P 199004-65-4P 199004-67-6P
(preparation of 3-pyrazoliomethylcephem compds. as antimicrobial agents)

L27 ANSWER 5 OF 7 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1992:469622 HCAPLUS Full-text
DOCUMENT NUMBER: 117:69622
TITLE: Studies on condensed-heterocyclic azolium cephalosporins. III. Synthesis and antibacterial activity of 7β-[2-(2-amino-5-substituted-thiazol-4-yl)-2(Z)-alkoxyiminoacetamido]-3-(condensed-heterocyclic azolium)methyl-3-cephem-4-carboxylates
AUTHOR(S): Nishimura, Tatsuo; Yoshimura, Yoshinobu; Miyake, Akio
CORPORATE SOURCE: Chem. Res. Lab., Takeda Chem. Ind., Ltd., Osaka, 532, Japan
SOURCE: Journal of Antibiotics (1992), 45(4), 485-99
CODEN: JANTAJ; ISSN: 0021-8820
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 23 Aug 1992
GI



I

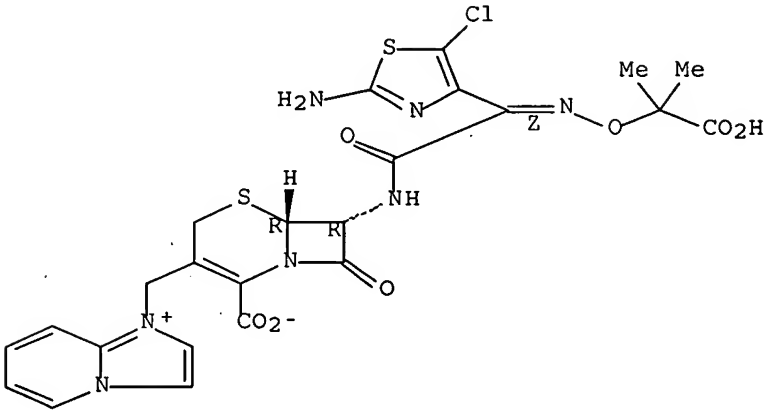


II

AB A series of azoliumylmethylcephemcarboxylates, e.g., I (R = Cl, Br, iodo, SMe, SOMe, SO2Me, SO3Na) and II (R1 = H, 1-, 3-, 5-, 7-Me, 7-Cl, 7-CO2Me, 7-cyano) were prepared and tested for antibacterial activity. II (R1 = H) showed good antibacterial activity against both Staphylococcus aureus including methicillin-resistant strains and Pseudomonas aeruginosa.
IT **106850-43-5P** **106850-52-6P** **141912-82-5P**
141912-95-0P
(preparation and bactericidal activity of)
RN 106850-43-5 HCAPLUS
CN Imidazo[1,2-a]pyridinium, 1-[[7-[[(2-amino-5-chloro-4-thiazolyl)[(1-carboxy-1-methylethoxy)imino]acetyl]amino]-2-carboxy-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-en-3-yl]methyl]-, inner salt,

[6R-[6α,7β(Z)]]- (9CI) (CA INDEX NAME)

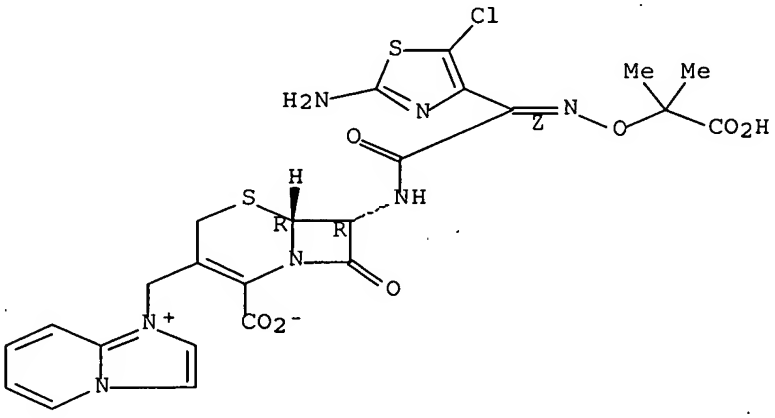
Absolute stereochemistry.
Double bond geometry as shown.



RN 106850-52-6 HCAPLUS
CN Imidazo[1,2-a]pyridinium, 1-[[7-[[(2-amino-5-chloro-4-thiazolyl)[(1-carboxy-1-methylethoxy)imino]acetyl]amino]-2-carboxy-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-en-3-yl]methyl]-, inner salt, monosodium salt, [6R-[6α,7β(Z)]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

PAGE 1-A



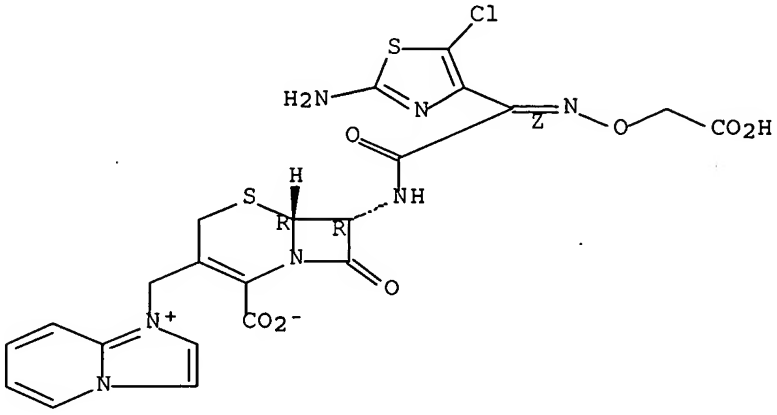
PAGE 2-A

● Na

RN 141912-82-5 HCAPLUS
CN Imidazo[1,2-a]pyridinium, 1-[[7-[[(2-amino-5-chloro-4-thiazolyl)[(carboxymethoxy)imino]acetyl]amino]-2-carboxy-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-en-3-yl]methyl]-, inner salt, monosodium salt, [6R-[6α,7β(Z)]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

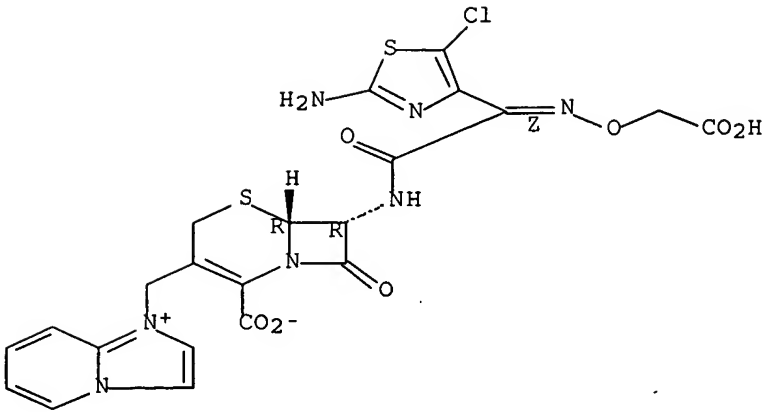
PAGE 1-A



PAGE 2-A

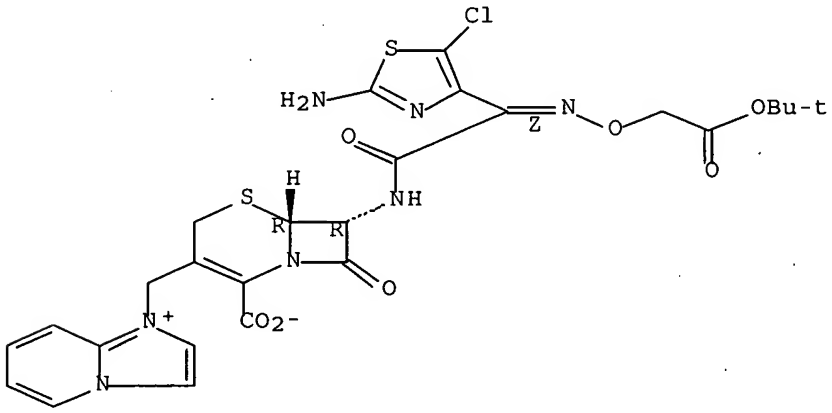
RN 141912-95-0 HCAPLUS
CN Imidazo[1,2-a]pyridinium, 1-[[7-[[(2-amino-5-chloro-4-thiazolyl)[(carboxymethoxy)imino]acetyl]amino]-2-carboxy-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-en-3-yl]methyl]-, inner salt, [6R-[6α,7β(Z)]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



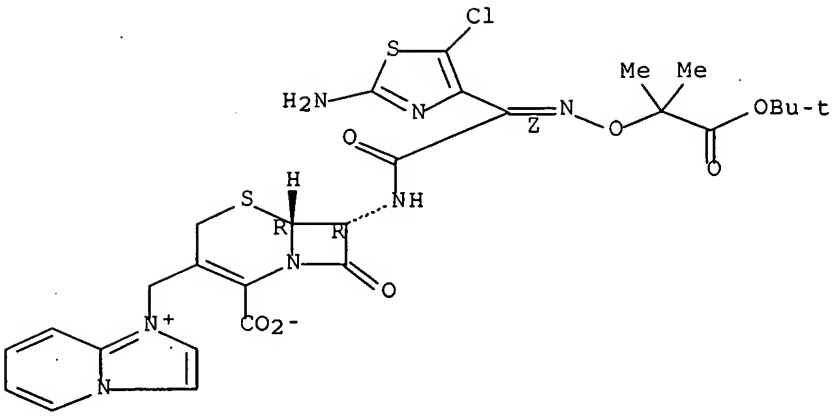
IT **141912-96-1P 141912-97-2P**
(preparation and ester hydrolysis of)
RN 141912-96-1 HCAPLUS
CN Imidazo[1,2-a]pyridinium, 1-[[7-[[(2-amino-5-chloro-4-thiazolyl)[[2-(1,1-dimethylethoxy)-2-oxoethoxy]imino]acetyl]amino]-2-carboxy-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-en-3-yl]methyl]-, inner salt, [6R-[6α,7β(Z)]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



RN 141912-97-2 HCAPLUS
CN Imidazo[1,2-a]pyridinium, 1-[[7-[[(2-amino-5-chloro-4-thiazolyl)[[2-(1,1-dimethylethoxy)-1,1-dimethyl-2-oxoethoxy]imino]acetyl]amino]-2-carboxy-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-en-3-yl]methyl]-, inner salt, [6R-[6α,7β(Z)]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



CC 26-5 (Biomolecules and Their Synthetic Analogs)
Section cross-reference(s): 10
IT 104468-84-0P **106850-43-5P** 106850-51-5P
106850-52-6P 141912-74-5P 141912-75-6P 141912-76-7P
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141912-89-2P 141912-90-5P 141912-91-6P 141912-92-7P
141912-93-8P 141912-94-9P **141912-95-0P** 141946-75-0P
(preparation and bactericidal activity of)
IT 141887-13-0P 141887-14-1P **141912-96-1P**
141912-97-2P
(preparation and ester hydrolysis of)

L27 ANSWER 6 OF 7 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1987:101958 HCAPLUS Full-text
DOCUMENT NUMBER: 106:101958
TITLE: Antibacterial cephem analogs
INVENTOR(S): Miyake, Akio; Kondo, Masahiro; Fujino, Masahiko
PATENT ASSIGNEE(S): Takeda Chemical Industries, Ltd., Japan
SOURCE: PCT Int. Appl., 195 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 4
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 8605184	A1	19860912	WO 1985-JP102	19850301
W: MC				
NO 8501538	A	19851024	NO 1985-1538	19850417
NO 165842	B	19910107		
NO 165842	C	19910417		
EP 160252	A2	19851106	EP 1985-104687	19850418
EP 160252	A3	19870114		
EP 160252	B1	19921223		
R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE				
AT 79882	T	19920915	AT 1985-104687	19850418
DK 8501799	A	19851024	DK 1985-1799	19850422
FI 8501592	A	19851024	FI 1985-1592	19850422
JP 60231684	A	19851118	JP 1985-86746	19850422

ES 542447	A1	19860401	ES 1985-542447	19850422
SU 1595341	A3	19900923	SU 1985-3896500	19850422
AU 8541700	A	19851031	AU 1985-41700	19850423
AU 580995	B2	19890209		
US 4788185	A	19881129	US 1985-726438	19850423
CA 1283096	C	19910416	CA 1985-479769	19850423
CN 85105797	A	19860827	CN 1985-105797	19850730
ES 549180	A1	19870716	ES 1985-549180	19851122
NO 8504730	A	19851024	NO 1985-4730	19851126
NO 167293	B	19910715		
NO 167293	C	19911023		
NO 8600725	A	19860902	NO 1986-725	19860227
NO 166283	B	19910318		
NO 166283	C	19910626		
EP 203271	A2	19861203	EP 1986-102584	19860227
EP 203271	A3	19880601		
EP 203271	B1	19930526		
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FI 85858	C	19920610		
AU 8654168	A	19860904	AU 1986-54168	19860228
AU 598728	B2	19900705		
WO 8605183	A1	19860912	WO 1986-JP99	19860228
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CN 86102034	A	19870107	CN 1986-102034	19860228
CN 1030657	B	19960110		
ES 552525	A1	19870516	ES 1986-552525	19860228
JP 62149682	A	19870703	JP 1986-44991	19860228
JP 02057074	B	19901203		
CA 1295995	C	19920218	CA 1986-502935	19860228
ZA 8601566	A	19871125	ZA 1986-1566	19860303
ES 553666	A1	19870616	ES 1986-553666	19860403
ES 557129	A1	19871201	ES 1986-557129	19861003
SU 1678211	A3	19910915	SU 1986-4028462	19861031
ES 557182	A1	19880101	ES 1986-557182	19861103
ES 557182	A5	19880128		
ES 557183	A1	19880101	ES 1986-557183	19861103
ES 557183	A5	19880128		
SU 1788955	A3	19930115	SU 1988-4355188	19880211
JP 03047189	A	19910228	JP 1990-169780	19900629
JP 07030089	B	19950405		
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RU 2059641	C1	19960510	RU 1992-5052288	19920630

PRIORITY APPLN. INFO.:	WO 1984-JP212	A	19840423
	WO 1984-JP270	A	19840525
	WO 1985-JP102	A	19850301
	NO 1985-1538	A	19850417
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	JP 1985-209320	A	19850920
	EP 1986-102584	A	19860227

ED Entered STN: 05 Apr 1987
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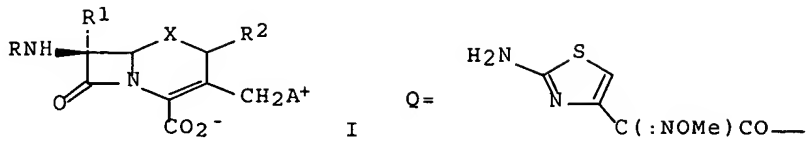


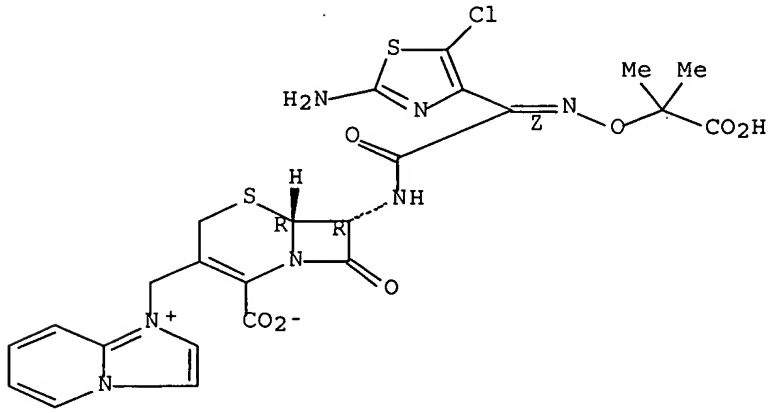
AB The title compds. [I; R = H, acyl, alkoxycarbonyl, N-containing heterocyclyl(substituted hydroxyimino)acetyl; R1 = H, OMe, HCONH; R2 = H, Me, OH, halo; A+ = (un)substituted fused imidazolium-1-yl; X = S, S(O), O, CH2], useful as antibacterials (no data), were prepared Thus, a solution of 7β-[2-(2-aminothiazol-4-yl)-2(Z)- (methoxyiminoacetamido)]-3-(3-oxobutyryloxymethyl)-3-cephem-4- carboxylic acid, 6-cyanoimidazo[1,2-a]pyridine, and KI in a 1:1 mixture of MeCN and H2O was allowed to react at 60-70° for 1.5 h to give 7β-(Z)-I [R = Q, R1 = R2 = H, A+ = 6-cyanoimidazo[1,2- a]pyridinium-1-yl, X = S].

IT **106850-43-5P 106850-52-6P**
(preparation of, as antibacterial)

RN 106850-43-5 HCAPLUS

CN Imidazo[1,2-a]pyridinium, 1-[[7-[[(2-amino-5-chloro-4-thiazolyl)[(1-carboxy-1-methylethoxy)imino]acetyl]amino]-2-carboxy-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-en-3-yl]methyl]-, inner salt, [6R-[6α,7β(Z)]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

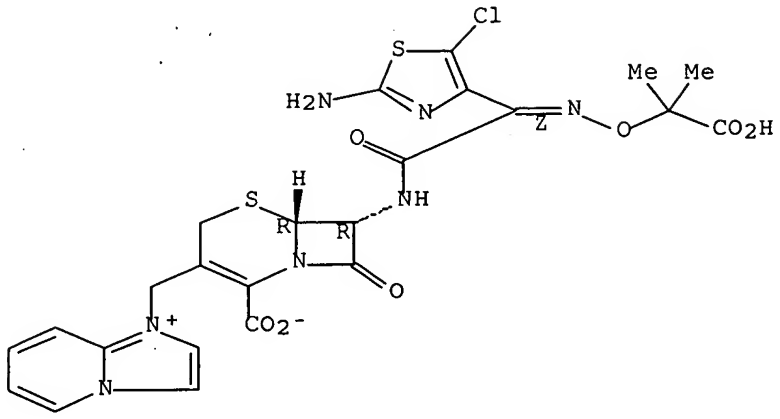


RN 106850-52-6 HCAPLUS

CN Imidazo[1,2-a]pyridinium, 1-[[7-[[(2-amino-5-chloro-4-thiazolyl)[(1-carboxy-1-methylethoxy)imino]acetyl]amino]-2-carboxy-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-en-3-yl]methyl]-, inner salt, monosodium salt, [6R-[6α,7β(Z)]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

PAGE 1-A



PAGE 2-A

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IC ICM C07D519-00
ICS A61K031-435; A61K031-535; A61K031-545
CC 26-5 (Biomolecules and Their Synthetic Analogs)
Section cross-reference(s): 1
IT 103313-15-1P 103313-25-3P 106850-32-2P 106850-33-3P
106850-35-5P 106850-36-6P 106850-37-7P 106850-38-8P
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106851-05-2P 106851-06-3P 106867-38-3P 106867-39-4P
106867-40-7P
(preparation of, as antibacterial)

L27 ANSWER 7 OF 7 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1983:16504 HCAPLUS Full-text

DOCUMENT NUMBER: 98:16504
TITLE: Cephem compounds, pharmaceutical compositions containing them and their starting compounds
INVENTOR(S): Takaya, Takao; Takasugi, Hisashi; Murata, Masayoshi; Yoshioka, Akiteru
PATENT ASSIGNEE(S): Fujisawa Pharmaceutical Co., Ltd. , Japan
SOURCE: Eur. Pat. Appl., 41 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 55466	A2	19820707	EP 1981-110710	19811223
EP 55466	A3	19831116		
EP 55466	B1	19870506		
R: AT, BE, CH, DE, FR, GB, IT, LU, NL, SE				
JP 57131795	A	19820814	JP 1982-140	19561225
US 4427677	A	19840124	US 1981-332830	19811221
AT 26983	T	19870515	AT 1981-110710	19811223
JP 01156969	A	19890620	JP 1988-295323	19881122
JP 03016351	B	19910305		

PRIORITY APPLN. INFO.: GB 1980-41639 A 19801231
GB 1981-21557 A 19810713
EP 1981-110710 A 19811223

OTHER SOURCE(S): MARPAT 98:16504
ED Entered STN: 12 May 1984
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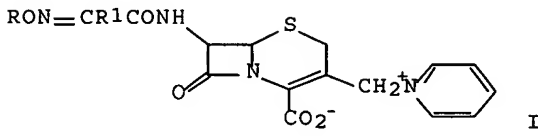


I

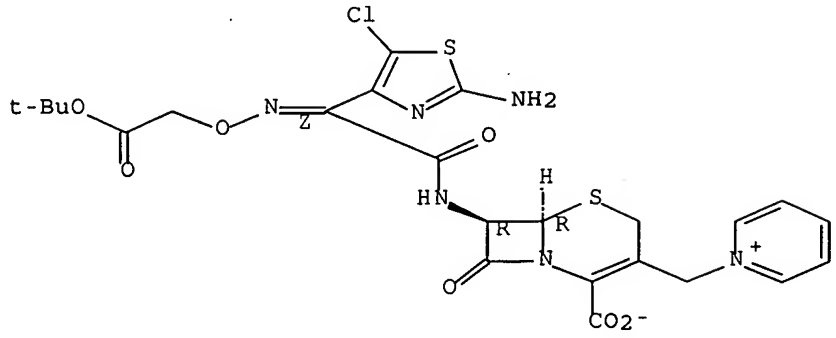
AB Pyridiniomethylcephems I [R = (un)substituted alkyl; R1 = aminohalothiazolyl] were prepared Thus N-methylthiomethoxyphthalimide was treated with N2H4 to give MeSCH2ONH2 which was treated with Et 2-formamido-5-chloro-4-thiazolylglyoxylate and the resulting iminoacetic acid used to acylate the aminocephem to give I (R = MeSCH2, R1 = 2-formamido-5-chloro-4-thiazolyl). I (R = Et, R1 = 2-amino-5-chloro-4-thiazolyl) had a min. inhibitory concentration against Pseudomonas aeruginosa of 12.5 μg/mL.

IT **83985-88-0P**
(preparation and hydrolysis of)

RN 83985-88-0 HCAPLUS

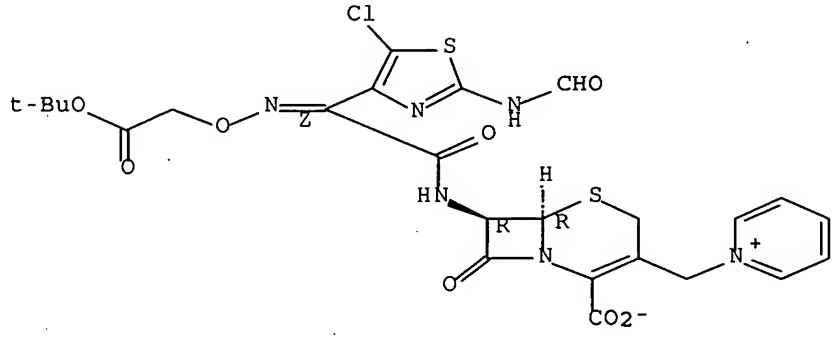
CN Pyridinium, 1-[[7-[[(2-amino-5-chloro-4-thiazolyl)[[2-(1,1-dimethylethoxy)-2-oxoethoxy]imino]acetyl]amino]-2-carboxy-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-en-3-yl]methyl]-, inner salt, [6R-[6α,7β(Z)]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



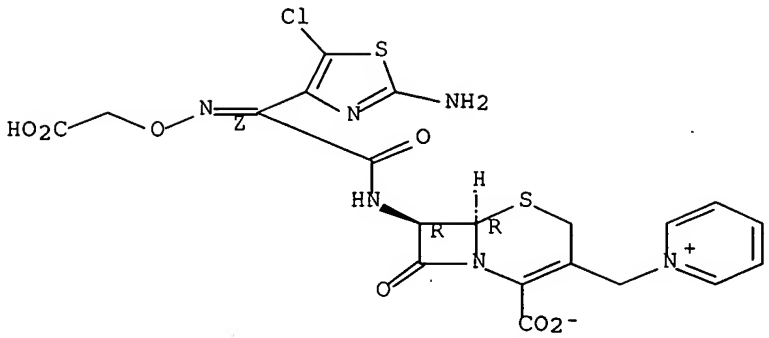
IT **83985-84-6P 83985-89-1P**
(preparation of)
RN 83985-84-6 HCAPLUS
CN Pyridinium, 1-[[2-carboxy-7-[[[5-chloro-2-(formylamino)-4-thiazolyl][[2-(1,1-dimethylethoxy)-2-oxoethoxy]imino]acetyl]amino]-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-en-3-yl]methyl]-, inner salt, [6R-[6α,7β(Z)]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



RN 83985-89-1 HCAPLUS
CN Pyridinium, 1-[[7-[[(2-amino-5-chloro-4-thiazolyl)[(carboxymethoxy)imino]acetyl]amino]-2-carboxy-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-en-3-yl]methyl]-, inner salt, [6R-[6α,7β(Z)]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



IC C07D501-46; C07D277-20; A61K031-545
CC 26-5 (Biomolecules and Their Synthetic Analogs)
Section cross-reference(s): 1
IT 83985-83-5P **83985-88-0P** 83985-93-7P
(preparation and hydrolysis of)
IT 83973-59-5P 83985-81-3P **83985-84-6P** 83985-85-7P
83985-86-8P 83985-87-9P **83985-89-1P** 83985-90-4P
83985-92-6P
(preparation of)

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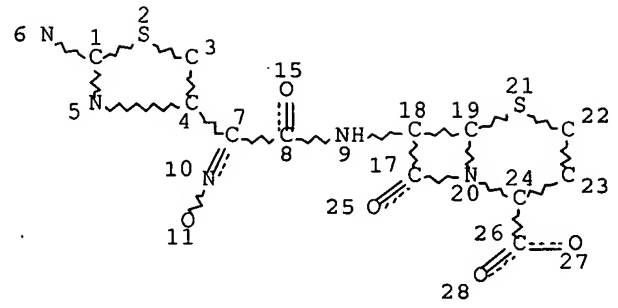

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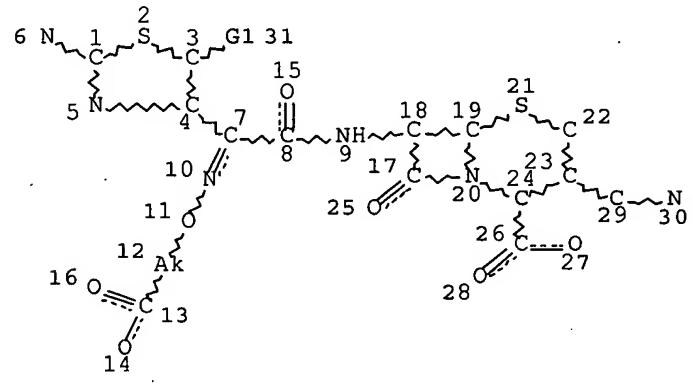

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NUMBER OF NODES IS  31

STEREO ATTRIBUTES: NONE
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L26            1 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L24 OR L25) AND L17


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L26  ANSWER 1 OF 1  HCAPLUS  COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER:         2003:757715  HCAPLUS  Full-text
DOCUMENT NUMBER:          139:261088
TITLE:                    Preparation of broad-spectrum cephem compounds
INVENTOR(S):              Nishitani, Yasuhiro; Yamano,
                          Yoshinori
PATENT ASSIGNEE(S):       Shionogi & Co., Ltd., Japan
SOURCE:                   PCT Int. Appl., 209 pp.
                          CODEN: PIXXD2
DOCUMENT TYPE:            Patent
LANGUAGE:                 Japanese
FAMILY ACC. NUM. COUNT:   1
PATENT INFORMATION:

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     WO 2003078440         A1    20030925    WO 2003-JP3249           20030318
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             GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC,
             LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI,
             NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ,
             TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ,
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             NE, SN, TD, TG
     CA 2479354            A1    20030925    CA 2003-2479354          20030318
     AU 2003221080         A1    20030929    AU 2003-221080           20030318
     EP 1489084            A1    20041222    EP 2003-712748           20030318
         R:  AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC,
             PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK
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     US 2005153950         A1    20050714    US 2003-507502           20030318
     CN 1653072            A     20050810    CN 2003-810969           20030318
PRIORITY APPLN. INFO.:                       JP 2002-73526        A   20020318

                                             WO 2003-JP3249       W   20030318

OTHER SOURCE(S):          MARPAT 139:261088
ED   Entered STN:  26 Sep 2003
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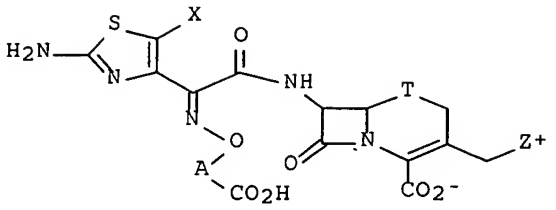


I

AB Cephem compds. I (T is S, SO, or O; X is halogeno, CN, carbamoyl which may be substituted with lower alkyl, lower alkyl, lower alkoxy, or lower alkylthio; A is substituted lower alkylene (wherein the substituent is optionally substituted mono-lower alkyl, optionally substituted lower alkylidene, or optionally substituted lower alkylene); and Z+ is an optionally substituted nitrogenous heterocyclic group having a cationic group), their ester, protected 7-aminothiazole, or pharmaceutically acceptable salts or solvates, are prepared I [X = Me, A = Me2C, T = S, Z = 1-(3-methylaminopropyl)-1H-imidazo[4,5-b]pyridinium-4-yl-] was prepared and showed antibacterial activities superior to that of ceftazidime.

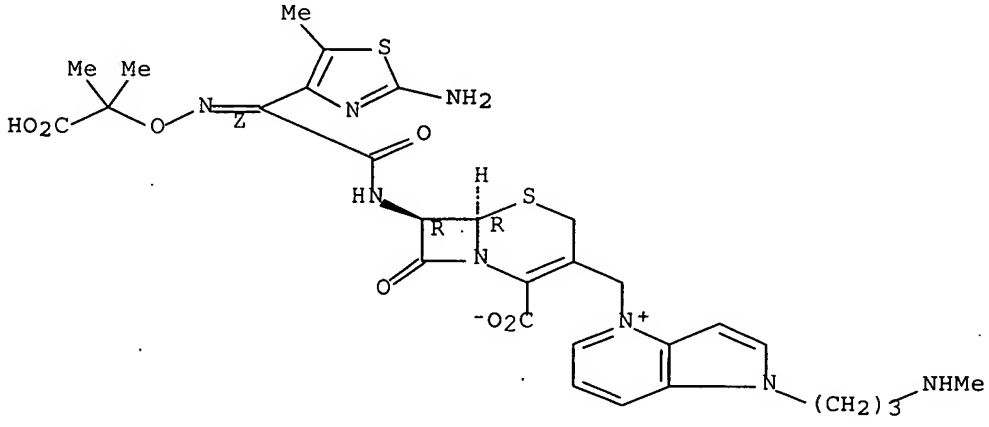
IT **603999-29-7P**

(preparation of broad-spectrum cephem compds.)

RN 603999-29-7 HCAPLUS

CN 1H-Pyrrolo[3,2-b]pyridinium, 4-[[(6R,7R)-7-[[(2Z)-(2-amino-5-methyl-4-thiazolyl)[(1-carboxy-1-methylethoxy)imino]acetyl]amino]-2-carboxy-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-en-3-yl]methyl]-1-[3-(methylamino)propyl]-, inner salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



IC ICM C07D501-50
ICS C07D277-40; C07D277-46; C07D277-56; C07D519-06; A61K031-546; A61P031-04

CC 26-5 (Biomolecules and Their Synthetic Analogs)
Section cross-reference(s): 1

IT **603999-29-7P 603999-33-3P 603999-35-5P**
603999-36-6P 603999-42-4P 603999-44-6P
603999-62-8P 603999-64-0P 603999-66-2P

604000-80-8P 604001-18-5P 604001-47-0P
604001-55-0P
(preparation of broad-spectrum cephem compds.)

IT 54224-25-8P 115369-38-5P 604002-19-9P 604002-20-2P
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604002-64-4P 604002-65-5P 604002-66-6P 604002-67-7P
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604002-91-7P 604002-93-9P 604002-94-0P
(preparation of broad-spectrum cephem compds.)

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603999-58-2P 603999-60-6P 603999-68-4P
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603999-77-5P 603999-79-7P 603999-81-1P
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603999-89-9P 603999-91-3P 603999-93-5P
603999-95-7P 603999-97-9P 603999-99-1P
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604000-13-7P 604000-15-9P 604000-17-1P
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604000-25-1P 604000-27-3P 604000-29-5P
604000-31-9P 604000-33-1P 604000-35-3P
604000-37-5P 604000-40-0P 604000-42-2P
604000-44-4P 604000-46-6P 604000-48-8P
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604001-20-9P 604001-22-1P 604001-24-3P
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604002-14-4P 604002-15-5P 604002-16-6P
604002-17-7P 604002-18-8P

(preparation of broad-spectrum cephem compds.)

REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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=> d his nofile

     (FILE 'HOME' ENTERED AT 10:41:18 ON 09 MAR 2007)

     FILE 'HCAPLUS' ENTERED AT 10:41:23 ON 09 MAR 2007
L1             1 SEA ABB=ON  PLU=ON  US20050153950/PN
                 SEL RN

     FILE 'REGISTRY' ENTERED AT 10:41:41 ON 09 MAR 2007
L2           273 SEA ABB=ON  PLU=ON  (113479-65-5/BI OR 115369-36-3/BI OR
                 115369-38-5/BI OR 524-38-9/BI OR 5292-43-3/BI OR 54224-25-8
                 /BI OR 603999-29-7/BI OR 603999-31-1/BI OR 603999-33-3/BI
                 OR 603999-35-5/BI OR 603999-36-6/BI OR 603999-38-8/BI OR
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                 604001-10-7/BI OR 604001-12-9/BI OR 604001-14-1/BI OR
                 604001-16
L3               STR
L4               STR L3
L5             3 SEA SSS SAM L4
L6               STR L4
L7             4 SEA SSS SAM L6
L8               STR L6
L9            50 SEA SSS SAM L8
L10        27085 SEA SSS FUL L8
L11          244 SEA ABB=ON  PLU=ON  L10 AND L2
                 SAV L10 BER502/A
L12              STR L3
L13            0 SEA SUB=L10 SSS SAM L12
L14              STR L12
L15            8 SEA SUB=L10 SSS SAM L14
L16          275 SEA SUB=L10 SSS FUL L14
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     FILE 'HCAPLUS' ENTERED AT 11:08:51 ON 09 MAR 2007
L17            8 SEA ABB=ON  PLU=ON  L16

     FILE 'REGISTRY' ENTERED AT 11:09:52 ON 09 MAR 2007
L18            0 SEA ABB=ON  PLU=ON  L16 AND MEDLINE/LC
L19            0 SEA ABB=ON  PLU=ON  L16 AND BIOSIS/LC
L20            0 SEA ABB=ON  PLU=ON  L16 AND EMBASE/LC
L21            0 SEA ABB=ON  PLU=ON  L16 AND DRUGU/LC

     FILE 'CAOLD' ENTERED AT 11:11:58 ON 09 MAR 2007
L22            0 SEA ABB=ON  PLU=ON  L16

     FILE 'BEILSTEIN' ENTERED AT 11:12:12 ON 09 MAR 2007
L23            0 SEA ABB=ON  PLU=ON  L16

     FILE 'HCAPLUS' ENTERED AT 11:12:33 ON 09 MAR 2007
L24          305 SEA ABB=ON  PLU=ON  NISHITANI, Y?/AU
L25          422 SEA ABB=ON  PLU=ON  YAMANO, Y?/AU
L26            1 SEA ABB=ON  PLU=ON  (L24 OR L25) AND L17
L27            7 SEA ABB=ON  PLU=ON  L17 NOT
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